

What is Claimed Is:

[c1] 1. A system for enabling enhanced asset management and tracking capabilities, comprising:
a plurality of electronic asset identification devices, wherein each of the plurality of electronic asset identification devices is affixed to an asset whose location and information are to be managed,
wherein each of the plurality of asset identification devices includes at least unique identification information relating to the asset to which it is affixed;
an asset management server computer system for maintaining at least one database containing information regarding the asset identification devices and the assets to which they are affixed;
a remote client computer system operatively connected to the asset management server computer system for exchanging information over a computer network; and
at least one interrogation device operatively connected to the remote client computer system,
wherein the at least one interrogation device receives information from the plurality of asset identification devices and exchanges said information with the remote client computer system.

[c2] 2. The system of claim 1, wherein the plurality of electronic asset management devices include radio frequency identification tags.

[c3] 3. The system of claim 2, wherein the at least one interrogation device includes a fixed radio frequency identification tag reader.

[c4] 4. The system of claim 2, wherein the at least one interrogation device includes a handheld radio frequency identification tag reader.

[c5] 5. The system of claim 4, wherein the handheld radio frequency identification tag reader is a handheld computing device.

[c6] 6. The system of claim 5, wherein the remote client computer system is the handheld computing device.

[c7] 7. The system of claim 1, further comprising:

at least one legacy database system operatively connected to the asset management server computer system, for enabling exchange of legacy information relating to the assets to be managed.

[c8] 8.The system of claim 1, wherein the asset management server computer system further comprises:
at least one web application server computer system for serving a plurality of interactive web pages relating to the asset identification devices and the assets to which they are affixed.

[c9] 9.The system of claim 8, further comprising:
at least one hypertext transfer protocol server computer system operatively connected to the web application server computer system; and
at least one authentication server computer system operatively connected to the hypertext transfer protocol server for performing authentication and logon services, wherein the authentication server computer system is further operatively connected to an LDAP directory system for facilitating user login and authentication,
wherein information exchanges initiated by the remote client computer system result in a first connection between the remote client computer system and the at least one authentication server computer system.

[c10] 10.The system of claim 8, wherein the plurality of interactive web pages include:
a home page;
a login page for receiving user login information;
a main menu page for displaying a plurality of options to users, selection of which a user to view and/or modify the asset management information maintained on the asset management web server computer system;
a project details page for displaying general information regarding asset management information relating to a selected project;
an asset search page for receiving asset search criteria from the user, the submission of which causes the asset management web server computer system to retrieve asset management information matching the submitted search criteria;

an asset search results page for displaying the retrieved asset management information; and

an asset details page for displaying specific asset management information relating to a selected one of the assets displayed on the asst search results page.

[c11] 11. The system of claim 10, further comprising:
at least one authentication server computer system operatively connected to the web application server computer system for facilitating user login and authentication, wherein the web server application serves different web pages depending upon login information received from the remote client computer system.

[c12] 12. The system of claim 11, wherein upon receipt of an administration level user, the plurality of interactive web pages further include:
a show report menu page for enabling users to select and create reports of available asset management information;
a synchronize web page for receiving file information for a file to be synchronized;
an asset receipt form web page for receiving a user indication regarding receipt of an asset;
an asset exception annotation web page for receiving information regarding an exception to be added to a selected asset;
an asset exception list page for displaying a listing of asset management exceptions associated with a selected project; and
a resolve asset exception web page, wherein users may indicate that a selected exception has been resolved.

[c13] 13. The system of claim 11, wherein upon receipt of a material handling level user, the plurality of interactive web pages further include:
a synchronize web page for receiving file information for a file to be synchronized;
an asset receipt form web page for receiving a user indication regarding receipt of an asset;

an asset exception annotation web page for receiving information regarding an exception to be added to a selected asset;

an asset exception list page for displaying a listing of asset management exceptions associated with a selected project;

an asset storage maintenance details web page for displaying asset management information relating to the storage and maintenance of a selected asset;

an asset location form web page for displaying the physical location of a selected asset; and

an update asset location form web page for receiving updated asset location information for a selected asset.

[c14] 14. The system of claim 8, further comprising:

at least one hypertext transfer protocol server computer system operatively connected to the web application server computer system; and

at least one authentication server computer system operatively connected to the hypertext transfer protocol server for performing authentication and logon services, wherein the authentication server computer system is further operatively connected to an LDAP directory system for facilitating user login and authentication,

wherein information exchanges initiated by the remote client computer system result in a first connection between the remote client computer system and the at least one authentication server computer system.

[c15] 15. The system of claim 1, wherein the remote client computer system is a laptop or notebook style computer system.

[c16] 16. The system of claim 1, wherein information is synchronized between the at least one interrogation device and the remote client computer system, such that changes to the information made on the at least one interrogation device are translated to the information maintained on the remote client computer system.

[c17] 17. The system of claim 16, wherein information is synchronized between the remote computer system and the asset management server computer system, such that changes to the information made on the remote client computer

system are translated to the information maintained on the asset management server computer system.

[c18] 18. The system of claim 1, further comprising additional remote client computer systems operatively connected to the asset management server computer system for enabling users to access and modify information contained on the asset management computer system.

[c19] 19. The system of claim 18, wherein users operating the additional remote client computer systems are provided specialized access depending upon login information received by the asset management server computer system.

[c20] 20. The system of claim 1, wherein the at least one interrogation device further comprises:
a computer software application resident thereon, wherein the computer software application incorporates one or more instructions for wirelessly determining the presence of a plurality of electronic asset identification devices.

[c21] 21. The system of claim 20, wherein the computer software application further comprises:
one or more instructions for determining whether a selected electronic asset identification device is within a range of the interrogation device;
one or more instructions for indicating the presence of the selected electronic asset identification device to the user; and
one or more instructions for enhancing the indication of the presence of the selected electronic asset identification device upon increasing proximity to the selected electronic asset identification device.

[c22] 22. The system of claim 20, wherein the computer software application further comprises:
one or more instructions for displaying asset management information regarding a selected asset, wherein the asset management information includes an indication regarding whether the selected asset has been confirmed; an indication that the selected asset has an electronic asset identification device affixed thereto; an indication regarding the presence of the affixed electronic

asset identification; and an indication regarding the storage status of the selected asset.

[c23] 23.The system of claim 20, wherein the computer software application further comprises:
one or more instructions for receiving an asset location area description;
one or more instructions for scanning the asset location area to identify the presence therein of electronic asset identification devices; and
one or more instructions for determining whether identified electronic asset identification devices correspond to information received from the asset management server computer system.

[c24] 24.The system of claim 20, wherein the computer software application further comprises:
one or more instructions for synchronizing local asset management information with asset management information received from the asset management server computer system for a selected group of assets.

[c25] 25.The system of claim 20, wherein the computer software application further comprises:
one or more instructions for receiving a user confirmation that a selected asset has been received; and
one or more instructions for receiving exception information relating to the selected asset.

[c26] 26.A method for enabling enhanced asset management and tracking capabilities, comprising:
affixing a plurality of electronic asset identification devices to an asset whose location and information are to be managed;
programming each of the plurality of asset identification devices to include at least unique identification information relating to the asset to which it is affixed;
maintaining at least one database containing information regarding the asset identification devices and the assets to which they are affixed on an asset management server computer system;

operatively connecting a remote client computer system to the asset management server computer system for exchanging information over a computer network; and

operatively connecting at least one interrogation device to the remote client computer system, wherein the at least one interrogation device receives information from the plurality of asset identification devices and exchanges said information with the remote client computer system.

- [c27] 27.The method of claim 26, wherein the plurality of electronic asset management devices include radio frequency identification tags.
- [c28] 28.The method of claim 27, wherein the at least one interrogation device includes a fixed radio frequency identification tag reader.
- [c29] 29.The method of claim 27, wherein the at least one interrogation device includes a handheld radio frequency identification tag reader.
- [c30] 30.The method of claim 29, wherein the handheld radio frequency identification tag reader is a handheld computing device.
- [c31] 31.The method of claim 30, wherein the remote client computer system is the handheld computing device.
- [c32] 32.The method of claim 26, further comprising:
operatively connecting at least one legacy database system to the asset management server computer system, for enabling exchange of legacy information relating to the assets to be managed.
- [c33] 33.The method of claim 26, wherein the step maintaining at least one database on an asset management server computer system further comprises:
serving a plurality of interactive web pages relating to the asset identification devices and the assets to which they are affixed from at least one web application server computer system.
- [c34] 34.The method of claim 33, further comprising:
operatively connecting at least one hypertext transfer protocol server computer system to the web application server computer system; and

operatively connecting at least one authentication server computer system to the hypertext transfer protocol server for performing authentication and logon services, wherein the authentication server computer system is further operatively connected to an LDAP directory system for facilitating user login and authentication,

wherein information exchanges initiated by the remote client computer system result in a first connection between the remote client computer system and the at least one authentication server computer system.

[c35] 35. The method of claim 33, wherein the step of serving a plurality of interactive web pages further comprises the steps of:

- displaying a home page;
- displaying a login page for receiving user login information;
- displaying a main menu page for displaying a plurality of options to users, selection of which a user to view and/or modify the asset management information maintained on the asset management web server computer system;
- displaying a project details page for displaying general information regarding asset management information relating to a selected project;
- displaying an asset search page for receiving asset search criteria from the user, the submission of which causes the asset management web server computer system to retrieve asset management information matching the submitted search criteria;
- displaying an asset search results page for displaying the retrieved asset management information; and
- displaying an asset details page for displaying specific asset management information relating to a selected one of the assets displayed on the asst search results page.

[c36] 36. The method of claim 35, further comprising:
operatively connecting at least one authentication server computer system to
the web application server computer system for facilitating user login and
authentication, wherein the web server application serves different web pages
depending upon login information received from the remote client computer
system.

[c37] 37. The method of claim 36, further comprising the steps of:
receiving administrative level user login information;:
displaying a show report menu page for enabling users to select and create
reports of available asset management information;
displaying a synchronize web page for receiving file information for a file to be
synchronized;
displaying an asset receipt form web page for receiving a user indication
regarding receipt of an asset;
displaying an asset exception annotation web page for receiving information
regarding an exception to be added to a selected asset;
displaying an asset exception list page for displaying a listing of asset
management exceptions associated with a selected project; and
displaying a resolve asset exception web page, wherein users may indicate that
a selected exception has been resolved.

[c38] 38. The method of claim 36, further comprising the steps of:
receiving material handling level user login information;
displaying a synchronize web page for receiving file information for a file to be
synchronized;
displaying an asset receipt form web page for receiving a user indication
regarding receipt of an asset;
displaying an asset exception annotation web page for receiving information
regarding an exception to be added to a selected asset;
displaying an asset exception list page for displaying a listing of asset
management exceptions associated with a selected project;
displaying an asset storage maintenance details web page for displaying asset
management information relating to the storage and maintenance of a selected
asset;
displaying an asset location form web page for displaying the physical location
of a selected asset; and
displaying an update asset location form web page for receiving updated asset
location information for a selected asset.

[c39] 39. The method of claim 33, further comprising:

operatively connecting at least one hypertext transfer protocol server computer system to the web application server computer system; and operatively connecting at least one authentication server computer system to the hypertext transfer protocol server for performing authentication and logon services, wherein the authentication server computer system is further operatively connected to an LDAP directory system for facilitating user login and authentication, wherein information exchanges initiated by the remote client computer system result in a first connection between the remote client computer system and the at least one authentication server computer system.

- [c40] 40.The method of claim 26, wherein the remote client computer system is a laptop or notebook style computer system.
- [c41] 41.The method of claim 26, further comprising the step of: synchronizing information between the at least one interrogation device and the remote client computer system, such that changes to the information made on the at least one interrogation device are translated to the information maintained on the remote client computer system.
- [c42] 42.The method of claim 41, further comprising the step of: synchronizing information between the remote computer system and the asset management server computer system, such that changes to the information made on the remote client computer system are translated to the information maintained on the asset management server computer system.
- [c43] 43.The method of claim 26, further comprising the step of: operatively connecting additional remote client computer systems to the asset management server computer system for enabling users to access and modify information contained on the asset management computer system.
- [c44] 44.The method of claim 43, wherein users operating the additional remote client computer systems are provided specialized access depending upon login information received by the asset management server computer system.
- [c45] 45.The method of claim 26, further comprising the step of wirelessly

determining, by a computer software application resident on the at least one interrogation device, the presence of a plurality of electronic asset identification devices.

[c46] 46.The method of claim 45, wherein the computer software application further performs the steps of:
determining whether a selected electronic asset identification device is within a range of the interrogation device;
indicating the presence of the selected electronic asset identification device to the user; and
enhancing the indication of the presence of the selected electronic asset identification device upon increasing proximity to the selected electronic asset identification device.

[c47] 47.The method of claim 45, wherein the computer software application further performs the step of:
displaying asset management information regarding a selected asset, wherein the asset management information includes an indication regarding whether the selected asset has been confirmed; an indication that the selected asset has an electronic asset identification device affixed thereto; an indication regarding the presence of the affixed electronic asset identification; and an indication regarding the storage status of the selected asset.

[c48] 48.The method of claim 45, wherein the computer software application further performs the steps of:
receiving an asset location area description;
scanning the asset location area to identify the presence therein of electronic asset identification devices; and
determining whether identified electronic asset identification devices correspond to information received from the asset management server computer system.

[c49] 49.The method of claim 45, wherein the computer software application further performs the step of:
synchronizing local asset management information with asset management

information received from the asset management server computer system for a selected group of assets.

[c50] 50. The method of claim 45, wherein the computer software application further performs the steps of:
receiving a user confirmation that a selected asset has been received; and
receiving exception information relating to the selected asset.